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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/356,845	07/19/1999	JOHN DAVID KAEWELL JR.	I-1-50.5US	8408

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VOLPE AND KOENIG, P.C.
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UNITED PLAZA, SUITE 1600
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PHILADELPHIA, PA 19103

EXAMINER

BOCURE, TESFALDET

ART UNIT	PAPER NUMBER
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2631

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DATE MAILED: 12/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/356,845

Applicant(s)

KAEWELL JR. ET AL.

Examiner

Tesfaldet Bocure

Art Unit

2631

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 October 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11,13-23,25-27 and 29-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11,13-23,25-27 and 29-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 11,13-23,25-27 and 29-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Schlosser et al.** (US patent number 3,879,581, of a record).

Schlosser teaches a communication system having a repeater station (100) (claimed primary) for communicating with a plurality of subscriber stations (not shown, see subscriber line in figure 1) and data terminals (110), wherein the repeater terminal comprising means and steps for: receiving an information signal from one of the subscriber stations using an up-link channel and slot through a data terminal (110); detecting the received up-link signal from the terminal and the sync signal and assigning

Art Unit: 2631

a sync. Signal in a corresponding time slot for transmitting to the receiving end on the assigned time slot and frequency (2a-2f and claims 1-6) as in claims 11,13,15,16,19,22,26 and 30. The repeater unit modifies the received up-link signals to be transmitted and assigns the down-link time slot without the knowledge of the data terminals and subscriber units, and therefore it is transparent to both the subscriber and the data terminals.

Further to claims 14,17 and 20, the data terminals and the subscriber station (not shown) are outside the operating range.

The time slots in figures 2a-2f having a corresponding up-link and downlink frequencies (800 channels) as in claims 23,27 and 30, and the sync. information and control field transmitted by the spacecraft 100 will be used by the data terminals to be synchronized as in claim 32.

The repeater unit (100) modifies the received signal to be transmitted to the receiving end, therefore, reads on the claimed equalizing the received signal before retransmitting as in claims 25,29 and 31.

The wideband downlink (121) includes a synchronization and control field, which is utilized by the spacecraft to interrogate and call the data terminals in order to set up a circuit connection, to provide time reference for uplink synchronization of the terminals (see col. 4, lines 41-59), reads on the newly claimed secondary station aligning its frame timing according to the received signal in claims 11,15 and 19. The repeater unit is a radio transceiver reads on the claimed transmitter and receiver embedded on radio as in claims 18 and 21.

What **Schlosser** fails to teach is that the repeater unit 100 synchronizing itself with the timing of the data terminals. However, Schlosser teaches that repeater station transmits an error signal to the subscriber stations after measuring the unique word

Art Unit: 2631

received within the burst signal. However, as claimed, whether the repeater station dictates the synchronization of the data terminal, the overall idea is that the data terminals are synchronized to each other through the repeater unit (global synchronization).

Therefore, it would have been obvious to one of an ordinary skill in the art to use the synchronization method of Schlosser, using the repeater timing to synchronize the data terminals rather than the data terminals' timing to synchronize the repeater unit at the time the invention was made.

Response to Arguments

3. In response to Applicant's Argument regarding to claim 11,13-23,25-27 and 29-32 that:

---All the independent claims recite "the primary station---detect a frame timing received signals and aligns its transmitting frame timing accordingly" or analogues recitation. None of the prior art disclose this arrangement, in particular Schlosser, in combination with the other elements of the claims. ---The spacecraft in schlosser clearly does not synchronize the timing of its downlink transmission with the received signals. The spacecraft clearly dictates the timing to the data terminal. The downlink frame format of the spacecraft is continuous and is not synchronized to the received signals.---

Art Unit: 2631

Examiner agrees with Applicant's assertion that the repeater station dictates the synchronization by transmitting an error signal to the subscriber stations after measuring the unique word received within the burst signal. However, as claimed, whether the repeater station dictates the synchronization of the data terminal, the overall process is that the data terminals are synchronized to each other through the repeater unit. Examiner would like to bring claims 1-6 to the Applicant's attention, wherein the repeater station (space craft100) receives a unique word within each of the transmitted burst from the data terminals, measures the synchronization error of the received timing with the common timing generated from by the repeater station (internal timing) and encodes to be transmitted to the data terminals.

Conclusion

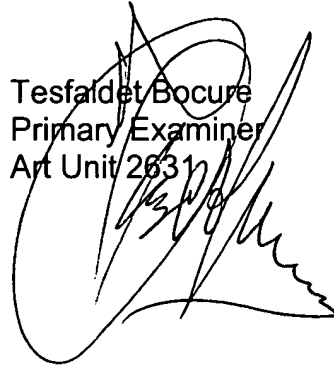
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tesfaldet Bocure whose telephone number is (703) 305-4735. The examiner can normally be reached on Mon-Thur (7:30a-5:00p) & Mon.-Fri (7:30a-5:00p).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad H Ghayour can be reached on (703) 306-3034. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314.

Art Unit: 2631

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

Tesfaldet Bocure
Primary Examiner
Art Unit 2631

A handwritten signature in black ink, appearing to read 'Tesfaldet Bocure', is written over the typed name and title.

T.Bocure